

Monthly Activity Report January 2007

D. Planning

2. Management Plan

The Refuge hosted a meeting to discuss the importance of the Refuge relative to rare plant conservation the State and Region. In attendance were representatives from the WVDNR Natural Heritage Program, WVDNR Game Division, The Nature Conservancy and West Virginia University. Meeting participants developed a list of rare plant species that occur on the Refuge, discussed threats to their populations and identified plant communities on the Refuge that have special conservation importance. An example is the circumneutral wetland complex associated with the North Branch River on the Orders Tract.

5. Research and Investigations

Kelley Flaherty (WVU) submitted preliminary results from her work on deer browse impacts and density estimates from the 2006 field season. Browse rates for flowering Jacob's ladder were studied again during 2006 and ranged from 0-69% browsed in Flaherty's plots. The average number of Jacob's ladder flowering stems browsed was 47.5% indicating that almost half of the flowers on the monitored Jacob's ladder plants were not maturing to produce seed as a result of deer browse pressure.

Comprehensive Conservation Planning

Thursday conference calls with Planner Bill Zinni have continued throughout the month.

The first focal group meeting was held on January 19th, all day. This meeting focused on rare plants.

On January 23rd the Refuge's CCP web page was updated to include information about the Notice of Intent, upcoming public open house meeting, and draft vision and goals

E. Administration

1. Personnel

Leah's GIS class

2. Training

On January 16th the staff completed Defensive Driving training. Completing the training were acting RM Holmes, RB Sturm, RB Ceperley, RB Crockett, PR Burns, PR Hartwig, AA Feather, and EEO Nicely. The training was self paced and video. The group did the video portion together. Each employee completed the exam, which was then mailed in. Certificates were received and distributed.

4. Volunteer Program

Three volunteers helped in the Visitor Center in January. Mary Katherine Salovaara contributed two days, 13 hours. Julie Halverson contributed 4 half days, 16 hours. Bill Hibbard contributed one day, 6.3 hours.

In January, Dave Leshner contributed 8 hours to board duties, one hour to bookstore bookkeeping, and 12 hours to the history project.

Intern Will Kirk began working at the Refuge on January 10th, and worked throughout the month. Will's internship is 32 hours per week, for twelve weeks for D&E College. He is working in Visitor Services, though we want him to experience various things that the Refuge does. He is staffing the visitor center on Saturdays, and sometimes during the week. He is preparing and leading several interpretive snowshoe walks, starting from White Grass. He is working on a new interactive traveling exhibit that we will use at HOFNOD expo in March. He has attended a couple of planning meetings and has helped John get the LE house ready to be lived in.

On January 31st ARM Holmes and PR Burns met with Volunteers Andy and Bruce Dalton to discuss volunteer opportunities for Master Naturalist students and the possibility of getting their help to staff the Visitor Center. Staffing the Visitor Center will be one way that they can work their volunteer hours, but it will not be a requirement. PR Burns will speak to the group about this and other Refuge volunteer opportunities at their May class.

F. Habitat Management

10. Pest Control

RB Crockett began developing a management plan for Japanese stiltgrass. Stiltgrass was identified on private property adjacent to the Refuge and may be established along logging roads on the Kelly-Elkins Tract. RB Crockett will be coordinating with the private land owners (Blackbear Woods) for permission to control stiltgrass to prevent its spread onto Refuge lands. Additionally, planning for a larger invasive species training project is being planned to use volunteer support for conducting invasive species surveys throughout the Refuge this summer.

3. Forests

RB Ceperley worked on completing the report summary of the forest inventory project. Preliminary results include...

RB Sturm met with USFS, The Nature Conservancy and USFWS WV Field Office to discuss details of a recently drafted and signed MOU on spruce restoration. The MOU will encourage agencies with land management capacity to work together on restoring the historical spruce forest throughout the high elevations of West Virginia. The MOU also creates a formal frame work for planning restoration and increases the potential for more competitive and collaborative funding initiatives.

G. Wildlife

2. Endangered and/or Threatened Species

RB Sturm attended a meeting at the USFWS WV Field Office in Elkins to discuss aspects of the delisting procedures for the WV northern flying squirrel (WVNFS) and cross-agency monitoring and habitat restoration projects. Present at the meeting were biologists from the USFS Monongahela National Forest, USFS Fernow Experimental Research Station, The Nature Conservancy and the WV Field Office. Discussions focused on the need for continued monitoring of the WVNFS throughout its range; however, locations and methodology are still being discussed.

17. Disease Prevention and Control

RB Sturm received the signature page for the Refuge Avian Influenza Plan this month. The plan was sent to WVDNR (Steve Wilson) for their information and to help coordinate any actions that the State may need to take on Refuge land.

H. Public Use

1. General

The Visitor Center was open 15 days and hosted 97 visitors in January.

Videographer Ryan Hagerty from NCTC attended the Friends history group meeting on January 22. They discussed where he could get historic photos to use in the Refuge orientation video.

On January 23rd, Videographer Hagerty and RB Sturm went out on the Refuge to get some snowy scene shots.

Work on Visitor Center exhibits continued through the month. Graphics are now in production. The 3-D map is fabricated. As the month ends, we are working out how to get good representations of our vegetation in the mini dioramas in the pods. Installation will begin February 26th.

4. Interpretive Foot Trails

On Monday, January 15th (M.L. King Day) a winter bird walk was led by Volunteer Casey Rucker. The unseasonably warm weather (60 degrees) was moderated by wind. Three visitors participated, nine birds were seen.

On Sunday, January 28th at 1 pm Volunteers Jonathon Jessup and Vern Patterson led a snowshoe photography walk titled "Exploring a Sense of Wonder Through Photography." The walk started at White Grass and was the second program in the series celebrating Rachel Carson. Mr. Jessup explored capturing the feeling one gets from being out in nature in photography. Fourteen people attended.

7. Other Interpretive Programs

On January 26th the Refuge kicked off its celebration of the 100th anniversary of Rachel Carson's birth with a showing of the American Experience video "Rachel Carson's Silent Spring." Fourteen people attended. The program was hosted by PR Burns. Afterwards participants expressed appreciation for the show.

RB Crockett completed work to update all Refuge kiosks with new trail maps and visitor information. Trail maps were changed to highlight the section of trail(s) which can be accessed from each kiosk instead of a large overview map. The old maps lacked detail and may have been confusing to visitors unfamiliar with the Valley.

RB Sturm met with Ryan Hagerty (NCTC) who was filming winter scenery for the Refuge video. RB Sturm and Hagerty visited the spring on Reichle Tract and areas on the Cortland Tract.

RB Sturm worked with Main Line Books in Elkins to establish a store front display for the Rachel Carson project. Interpretive posters created by RB Crockett were mounted and delivered to the book store. This display will remain in the bookstore for three weeks until the *Sense of Wonder* theatre production on February 16 when they will be displayed in the Boiler House Theatre.

RB Sturm sent information about Rachel Carson's 100th birthday celebration to two local high school science teachers including posters advertising the *Sense of Wonder* production. The materials included a USFWS CD with teaching resources about Rachel Carson and two DVD documentaries about *Silent Spring*. Teachers will hopefully incorporate these materials into their lesson plans and encourage students to attend the *Sense of Wonder* production.

17. Law Enforcement

General

Two boundary signs marking the corners on Rt. 32 at the north end of the valley were placed on the 8th. A safety zone sign was placed at the LE house that same day.

A no-bike sign that had been bent was replaced at the intersection of Timberline trail and FR 80.

Removal of tree limbs from FR80 and A Frame on the Refuge.

Law Enforcement Incidents/Investigations

On LEO Hartwigs way home on the 26th, he came upon a vehicle that had ran into a ditch along Rt. 32 north of Canaan Heights, the vehicle was removed from the ditch with assistance by the Davis Volunteer Fire Department. LEO Hartwig provided traffic control while the vehicle was being removed from the ditch.

Law Enforcement Court/Notice of Violations/Notice of Warning

The Smith Eagle case was heard at the United States District Court, in Elkins on the 9th. A plea agreement was made prior to hearing, Smith would plead guilty to possession of an eagle and the charges of take of Golden Eagle without permit and transport of Golden Eagle would be dropped. Smith was fined \$500 for the offense of possession of a Golden Eagle.

One verbal warning was issued by LEO Hartwig for a dog off leash on FR80.

Law Enforcement Partnerships/Meetings

Tucker County monthly Law Enforcement meeting.

LEO Hartwig met with the Sherriff of Garrett County, Maryland.

On the 27th LEO Hartwig did a ride along with WV State Police Trooper 575. This lasted about an hour and half. Five vehicles were pulled over for speeding all five people received verbal warnings.

Law Enforcement Contacts

Beall:	02
Freeland:	00
FS RD 80:	05
Camp 70:	02
A-Frame:	00
Blackwater River:	00
Whitegrass:	00
Big Cove:	00
Other:	27

Law Enforcement Hunting/Fishing/Trapping

Both raccoon and ruffed grouse season are in and will continue through the 28th of February.

Coyote season is still in through the 28th of February.

Fishing compliance checks: 00

Hunter compliance Checks: 01

Law Enforcement Training

LEO Hartwig continues with the annual fitness program and firearms training.

18. Cooperating Associations

The Friends of the 500th held their regular monthly board meeting on January 16th. By the time they worked through other items on the agenda there was little time to review the list of potential projects that the Refuge had submitted last month, so it was decided that would be done at a separate meeting on February 5th. Also, the Refuge will provide a CCP Update at future board meetings. This update will not be at the end of the meeting, when other Refuge updates are given.

February 2007 Monthly Report

D. Planning

2. Management Plan

The Refuge hosted a meeting to discuss the importance of the Refuge relative to migratory bird conservation and management on the Refuge. A total of 16 people attended representing the State, West Virginia University, U.S. Forest Service, and U.S. Forest Service Fernow Experimental Research Station and the U.S. Fish and Wildlife Service (Refuge and Regional Office). Discussions centered on habitat priorities and the associated bird species. American woodcock and early successional habitat were discussed specifically as priorities for consideration. Most in the meeting felt that the fact that Canaan is currently in a state of successional change was its strength from a migratory bird perspective.

Biology staff were involved with information gathering, rewriting and editing the old refuge hunting environmental assessment. A law suit brought by the Fund for Animals required many refuges to rewrite existing EA's for hunt plans to include a cumulative impact analysis. Most work in February centered on gathering and assessing data from Refuge and State hunting and wildlife surveys to then address potential cumulative effects of the Refuge hunt program.

E. Administration

1. Personnel

Nothing to report

F. Habitat Management

10. Pest Control

RB Crockett received information to apply to become a certified pesticide applicator. Crockett will spend time reviewing materials then travel to Morgantown, WV to take the applicator exam.

3. Forests

RB Ceperley completed the summary report of the forest inventory project.

G. Wildlife

2. Endangered and/or Threatened Species

H. Public Use

7. Other Interpretive Programs

The Refuge started a celebration for the 100th birthday of Rachel Carson this month. A series of public walks on the Refuge in collaboration with White Grass Ski touring Center focused on Carson's *Sense of Wonder* Theme. Themes of the three walks were "Exploring Nature through Photography", "Exploring a Child's Sense of Wonder" and "Winter Wildlife Through Tracking". A total of 32 people attended the walks.

Also, the Refuge sponsored a movie night showing the Rachel Carson Biography Rachel Carson's *Silent Spring* from American Experience PBS.

The Refuge coordinated with two local high school science teachers and provided teacher information CD's and posters to each school. The Refuge will work with the teachers in coming months to help students learn about Rachel Carson and her legacy.

The Refuge also worked with a local book store, Main Line Books in Elkins to feature Rachel Carson's books for the two weeks. In addition, Refuge Staff created three educational posters about Carson's life and *Silent Spring* which were displayed in the book store window.

These events led up to the main event for the Refuge's celebration. The Refuge along with the West Virginia Highlands Conservancy, Davis & Elkins College, the WV Chapter of the Sierra Club, the Friends of the 500th, Main Line Books and Mountaineer Audubon Society contributed time and funds to bring Kaiulani Lee's "*A Sense of Wonder*" theatre production to Elkins, WV. The play was held at Davis & Elkins College Boiler House Theatre. Tickets were offered free, thanks to the sponsors, with the hope that no one from the public would feel inhibited in attending. Over 160 people attended the performance which began with sponsors providing information to the public about the USFWS and other environmental organizations in the theatre lobby. At the end of the performance, the Refuge raffled off 13 copies of Carson's *A Sense of Wonder* and *Silent Spring* which were graciously donated by Main Line Books in Elkins.

Finally, Kaiulani Lee visited with students at Davis & Elkins College. Professors for an honors Women in Science course, Environmental Toxicology, and Atmospheric Resources met in one group which was followed by students majoring in Theatre. Topics discussed were Carson's message on pesticides, how her message changed environmental policy and helped develop the modern environmental movement as well as discussions on developing a character based on biographical information. Students in both classes had preparatory work from their professors who described Rachel Carson's life and work.



D&E Theatre Professor April Daras, Kaiulani Lee, RB Sturm (2/16/07 KS)



Public at D&E Theatre for "A Sense of Wonder" (2/16/07 KS)

17. Law Enforcement

General

Most Refuge roads closed due to snow fall amounts.

Law Enforcement Incidents/Investigations

On the 25th, at about 0900, LEO Hartwig was first on scene of accident approximately one mile south of the Maryland line in Preston County. Hartwig had Tucker County Communication notify Preston County dispatch of the accident. As a result of this single car accident there were no injuries and minor damage to the vehicle.

On the 25th, LEO Hartwig met up with W.V. State Trooper Corley for a ride along. During the ride-along, LEO Hartwig and Trooper Corley responded to one accident and one alarm call. The accident was on Rt. 72 north of Parsons. It was a single car accident

involving a blue Ford F-150 with four children and one adult. All five had minor injuries. The alarm call at the Forest service headquarters was a false alarm due to wind moving a door that was not properly latched.

On the 23rd, W.V. State Police were notified of a white pick-up, with a camper top, leaving the Elkins area with load of marijuana in it. The caller stated that the truck was heading for the Canaan Valley area. The State Police contacted LEO Hartwig about this situation and asked for his assistance in stopping this vehicle. The truck was stopped a short time later at the Canaan Valley stores by Sgt. Stump of the WVSP and LEO Hartwig. The truck was searched by LEO Hartwig and Trooper First Class Roy of the. After a full search of the vehicle was completed, there were no drugs found.

Law Enforcement Court/Notice of Violations/Notice of Warning

NOV issued on the 5th, for abandoned property at the swinging bridge parking area. A 1987 Toyota station wagon was left in the parking area without any current plates or registration for the vehicle.



1987 Toyota (02/05/07 B.H.)

Law Enforcement Partnerships/Meetings

Tucker County monthly Law Enforcement meeting.

On the 27th LEO Hartwig attended the Anti Terrorism Advisory Council meeting at the Berkley County Sheriffs Department. The meeting was from 10:00 AM till 1:00 PM.

Law Enforcement Contacts

Beall:	00
Freeland:	00
FS RD 80:	05
Camp 70:	00
A-Frame:	00
Blackwater River:	04
Whitegrass:	00
Big Cove:	00
Other:	05

Law Enforcement Hunting/Fishing/Trapping

Both raccoon and ruffed grouse season are in and will continue through the 28th of February.

Coyote season is still in through the 28th of February.

Fishing compliance checks: 05

Hunter compliance Checks: 00

Law Enforcement Training

LEO Hartwig continues with the annual fitness program and firearms training.

The biannual weapons qualifications were held at Camp Dawson on the 26th. Zone officer and Firearms Instructor David Nicely ran the qualifications for the day. Since the range was reserved DNR officer Troy Weber and Deputy Sheriff Jeff Brown of Preston County also took advantage of some free range time.



Camp Dawson Qualifying, ZLEO Nicely & WVDNR officer Weber (02/26/07 B.H.)



Camp Dawson Qualifying, LEO Hartwig w/AR 15 (02/26/07 J.B.)

LEO Hartwig completed ICS 200 training for the SURGE team.

March 2007 Monthly Report

E. Administration

1. Personnel

RB Sturm began the process of writing a contract for biological surveys. Michael Welch, long time Refuge volunteer, will be contracted to help conduct vernal pool surveys this spring. He will also develop a data base and input stream salamander data collected on the Refuge from 2001-2006.

F. Habitat Management

10. Pest Control

RB Crockett submitted paperwork to become a certified pesticide applicator this month. She will take the test in Morgantown next month and receive the certification.

3. Forests

Planning for an aspen cut on Timberline Road fell through this month. RB Sturm had contacted contractors to cut 1.8 acres of aspen to encourage new regrowth and stand expansion of aspen trees. Contractors were unable to conduct the cut until the third week of March. Unfortunately, warm weather caused aspen to begin breaking bud early and the cut was cancelled. This stand will be rescheduled for a management cut this fall when the trees drop leaves and are dormant to maximize resprouting.

RB Sturm began coordinating with the Nature Conservancy and the West Virginia Highlands Conservancy for an April spruce and balsam fir tree planting day. The Refuge will plant spruce trees along the Blackwater River on the Main Tract to correspond to plantings being conducted by the Nature Conservancy on adjacent private property. It is estimated that the Refuge will plant 2,000 balsam fir trees and 3,000 spruce trees in April.

G. Wildlife

7. Other Migratory Birds

The Refuge hosted the annual "Woodcock Wingbee" this year. The Wingbee is an event that focuses on determining the age and sex of woodcock wings submitted to the Fish and Wildlife Service during the hunt season. Hunters from most states in the Eastern and Central flyways participate and this year over 13, 600 wings were received. RB Sturm helped coordinate the Wingbee which was held in the Refuge maintenance facility. Biologists from the USFWS in Regions 4 and 5 as well as many State biologists attended the wingbee this year.



Refuge Staff Working at the Woodcock Wingbee (3/13/07 KS)



2007 Woodcock Wingbee Participants (3/13/07 JN)

10. Other Resident Wildlife

RB Sturm and RB Crockett began the seventh year of vernal pool amphibian nesting surveys this month. This project, coordinated through the USGS ARMI group was started to develop protocol for long term monitoring of amphibian populations. Surveys began on March 26 this year. First wood frog egg masses appeared in Canaan between March 23 and March 25. Spotted salamanders, typically a week or two later than wood frog egg laying in Canaan, appeared simultaneously this year. The Refuge Friends Group volunteered to cover some of the vernal pool points this year. RB Sturm provided a day of training on identification of egg masses and methodology for the survey.

H. Public Use

7. Other Interpretive Programs

RB Sturm attended the eastern regional high school science fair and Davis & Elkins College this year. RB Sturm helped judge the biology science projects and select those that will proceed to the state finals.

17. Law Enforcement

General

Removal of tree limbs from FR80 on the Refuge.

Most Refuge roads closed due to snow fall amounts.

LEO Hartwig participated in the USGS survey for the CCP process on the 1st.

LEO Hartwig participated in the Woodcock Wingbee on the 13th and 14th.

Law Enforcement Incidents/Investigations

On the 3rd LEO Hartwig responded to a four car accident on Rt. 32 near the Canaan Heights area. The first car involved in the accident had already been warned for speeding by LEO Hartwig just prior to this accident on Rt. 93 just north of Davis. There were no reported injuries, only minor damage to vehicles. All four vehicles were able to be driven away from the scene.

On the 25th, LEO Hartwig noticed two signs destroyed on FR.80. These signs were located on a seasonal cross country ski & snowshoe trail number four called Timberline Trail where it intersected with R. 80. The Carsonite sign was cut in half and the metal sign was bent and ripped off the post.

Law Enforcement Court/Notice of Violations/Notice of Warning

On the 3rd, one verbal warning was given for speeding to a Virginia driver heading west on Rt. 93.

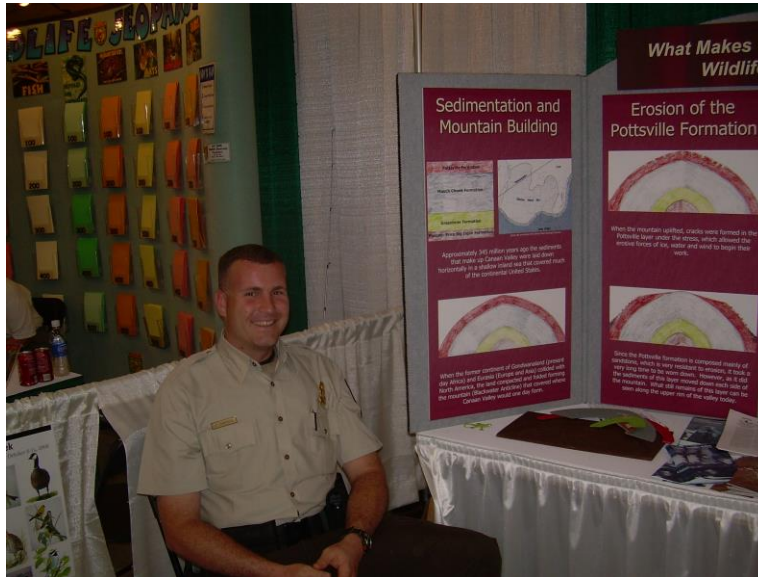
On the 13th, one verbal warning for speeding was given to a West Virginia driver on Rt. 219 on Back Bone Mountain.

Law Enforcement Partnerships/Meetings

On the 1st, LEO Hartwig attended the monthly Tucker County Law Enforcement meeting held at the court house in Parsons, West Virginia.

Law Enforcement Outreach

On the 31st, LEO Hartwig helped out with the staffing of the booth at the annual HOFNOD event held in Elkins, WV.



(03/31/2007 M.C.)

Law Enforcement Contacts

Beall:	00
Freeland:	00
FS RD 80:	02
Camp 70:	24
A-Frame:	00
Blackwater River:	16
Whitegrass:	00
Big Cove:	00
Other:	43

Law Enforcement Hunting/Fishing/Trapping

Fishing compliance checks: 46

Hunter compliance Checks: 00

Law Enforcement Training

LEO Hartwig continues with the annual fitness program and firearms training.

LEO Hartwig participated in the annual in-service held at National Conservation Training Center in Shepherdstown, WV from the 16th through the 23rd.



R3 + R5 Inservice Refresher 2007

In-service (03/17/07, NCTC staff photographer)

Law Enforcement Equipment

Tahoe was taken into Hibbs Communications for two radio frequency installs.

On the 30th, the Tahoe had to be taken in to Team One to have the front universal joint replaced.

April 2007 Monthly Report

E. Administration

1. Personnel

Contract employee Michael Welch completed work on organizing and entering stream salamander data into an access data base. This data had been collected by Refuge staff in collaboration with USGS Amphibian Monitoring Research Initiative (ARMI) from 2001-2006. However ARMI stopped the project and information collected by the Refuge was never entered into a USGS database. Additionally, Welch also aided RB Crockett in completing ARMI sponsored vernal pool surveys, an annual amphibian breeding survey.

F. Habitat Management

10. Pest Control

RB Crockett took and passed the State pesticide applicator certification test this month.

3. Forests

RB Sturm worked with the Nature Conservancy, West Virginia University and the West Virginia Highlands Conservancy to plant red spruce and balsam fir trees. The trees were planted along the Blackwater River on the Main Tract to correspond to plantings being conducted by the Nature Conservancy on adjacent private property. With the help of volunteers from 19 volunteers a total of 2,784 trees were planted.



Volunteers for April red spruce and balsam fir planting day (4/14/2007 MC)

G. Wildlife

10. Other Resident Wildlife

RB Crockett and contract biologist Michael Welch continued vernal pool amphibian nesting surveys this month. Volunteers Andi and Bruce Dalton also helped conduct the survey this year and were assigned specific pools to monitor. Surveys began on March 23 this year and were completed by April 20. All data sheets are submitted to USGS Amphibian Monitoring Research Initiative for compilation and analysis.

H. Public Use

7. Other Interpretive Programs

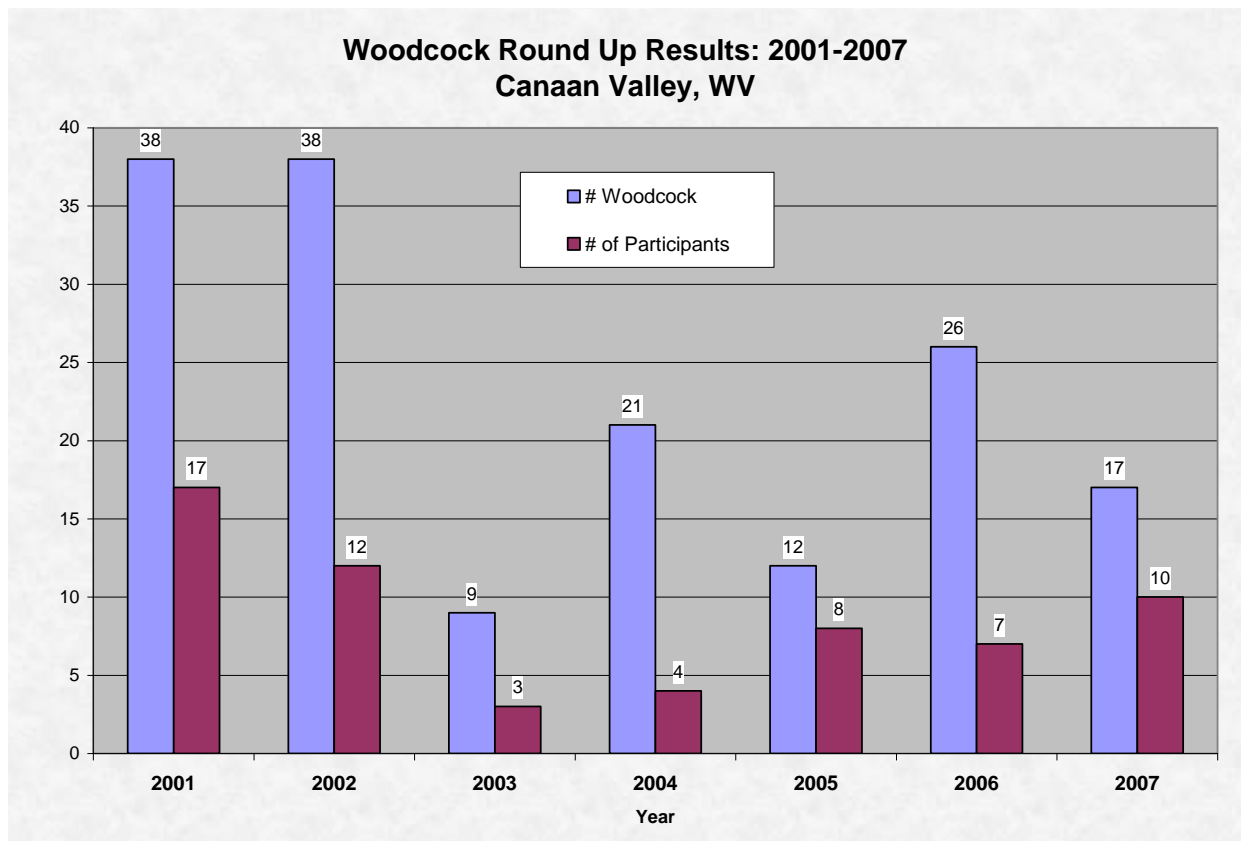
RB Sturm hosted the seventh annual “woodcock roundup” was held on April 21, 2007 this year. The “roundup” is a public event geared to get volunteers involved in conducting a survey for breeding woodcock at the south end of Canaan Valley. Habitats on the Refuge, the State Park and along major roads in the southern portion of the valley are monitored. Volunteers gather at the Refuge visitor’s center before the survey to learn about American woodcock. Information on life history, habitat management, aging and sexing individuals and population status are provided. Volunteers are given instructions on how to fill out a survey form and are shown a video (Woodcock Woodlands) and also listen to woodcock calls on CD before conducting the survey.

A total of 10 volunteers attended this years’ “roundup” which allowed for eight routes to be covered. Surveys began 22 minutes after official sunset (8:01pm) for a start time of 8:22 pm. Weather was favorable with clear skies and starting temperatures in the 50’s (F). A total of 17 woodcock were counted out of the eight routes surveyed. Additionally a total of five Wilson’s snipe were recorded during the survey. The table below details the number of woodcock counted on each route:

Route Name	Number of Woodcock Recorded
Beall/Old Timberline	3
Timberline Road	0
North Cortland Road	0
South Cortland Road	0
Freeland Road	1
Back Hollow Road	3
Canaan Valley SP – Golf Course	4
Canaan Valley SP – Camp Ground	6
TOTAL	17

The total number of woodcock recorded during the 2007 survey is the fifth largest survey result since the beginning of the woodcock roundup in 2001. In 2001 and 2002 a total of 38 woodcock were documented. However, the number of participants was greater which allowed for more routes to be covered. The number and experience of participants and

weather conditions are the most important factor in recording woodcock during this survey. Nonetheless, even in poor weather conditions, such as the 2005 roundup, a surprising number of woodcock can be documented in Canaan Valley. Results from the woodcock roundup for the last seven years are shown below. This was the first year that no woodcock were recorded from the Timberline Road route. Comments received by volunteers on this route stated that there was a lot of traffic along the road during the survey which likely affected the ability of the volunteers to detect woodcock calls.



In addition to woodcock, volunteers counted a total of 8 snipe calling from these routes. Although snipe are not a focus of the survey, volunteers are instructed to record snipe “winnowing” while at each point. Prior to conducting the survey recordings are played of both woodcock and snipe to ensure that participants are able to discern the two species. The snipe count this year was the third highest count since beginning the round up in 2001.

Recommendations for future woodcock roundup surveys is to contact volunteers who are familiar with woodcock calls to attend the survey and team up with volunteers from the public who have never heard woodcock or seen their display. This would help ensure consistency in how the data is recorded for more reliable results.

17. Law enforcement

General

Removal of tree limbs from A Frame Road on the Refuge.

On the 9th, a new parking sign was installed at Beall parking area and a carsonite was replaced at the Swinging Bridge and Brown Mountain trail head parking area.

On the 24th, it was reported of a possible power line down at Beall. LEO Hartwig found it to be a neutral wire that had been cut in half by a limb. Allegheny Power was notified and the wire was repaired by 2:06 pm.

On the 22nd, LEO Hartwig did a four wheeler patrol of the trails off of A Frame Road. The main mission of this patrol was to make sure all trails were free from trees and limbs to allow for safe passage along Refuge trails for the visitors. There were several spots along the trails that needed cutting done to clear the trail.



Blackbird Knob Trail (4/22/07 B. H.)

On the 27th, the annual Beerstock event was held as usual on the last weekend of April. Refuge Zone Law Enforcement Officer David Nicley was detailed to the Refuge for the expected increase in visitors to the area. The two main focuses to this detail were to keep ATV off of Refuge land and to assist the local LEO's in the area. Since ZLEO Nicley is a WV state commissioned officer it a great detail for him to be part of. With the extra force there were no reported trespassing violations on Refuge land by ATVs from this event. On state and private land there was one reported death and four DUIs.

Law Enforcement Incidents/Investigations

On the 25th, LEO Hartwig had an UXO reported to him by Michael Forsyth who was hunting for turkey that day. LEO Hartwig contacted SGT. K. L. Keplinger of the WV explosive response team. SGT. Keplinger arrived at the scene around 1:00 p.m. to destroy the UXO that had been found. The UXO was destroyed at about 3:27 p.m. by the

West Virginia explosive response team. This was the first documented UXO on Refuge land.



UXO (105 round) on Refuge (04/25/07B.H.)

At about 7:04 pm, on 219 north of the Fairfax Stone plant, LEO Hartwig was the first to respond to a two vehicle accident involving a tractor-trailer. There were no reported injuries, minor damage to the trailer, and major damage to the car. Tucker County EMS and the Thomas Volunteer Fire Department arrived at the scene about 15 minutes after the report. WV State Trooper Sgt. Stump arrived at the scene about 45 minutes after the call went out. WVSP conducted the investigation on this accident.

On the 1st, at 8:45 pm, LEO Hartwig was asked by the Maryland Natural Resource Police to assist in the tracking of an ATV that was reported to be in the Mount Nebo Management area. After twenty minutes of searching and no sight or sound, MNRP called off the search.

Law Enforcement Partnerships/Meetings

On the 5th, LEO Hartwig attended the monthly Tucker County Law Enforcement meeting held at the courthouse in Parsons, West Virginia.

Law Enforcement Contacts

Beall:	02
Freeland:	00
FS RD 80:	02
Camp 70:	31
A-Frame:	06
Blackwater River:	22
Whitegrass:	00
Big Cove:	00
Other:	00

Law Enforcement Hunting/Fishing/Trapping

WV youth turkey season was held on the 21st, just prior to the opening day of turkey which was on the 23rd. The season ends the 19th of May.

Fishing compliance checks: 34

Hunter compliance Checks: 09

Law Enforcement Training

LEO Hartwig continues with the annual fitness program and firearms training.



LEO Hartwig, Mt. Top gun range (4/25/07 B. H.)

May 2007 Monthly Report

F. Habitat Management

10. Pest Control

RB Sturm and RB Ceperley coordinated and conducted an invasive plant survey training session for volunteers this month. Funding was received through a FWS Challenge-Cost Share to purchase equipment and supplies to facilitate an invasive plant survey of the Refuge using volunteers from the Friends of the 500th and the Master Naturalist Program. Interest in the project was high and the Refuge was able to have 10 public use trails monitored for key invasive species this year. Surveys are being conducted once a month from June-August. Funding was used to purchase clip boards, gps units, paper and other supplies to complete the project.

G. Wildlife

2. Endangered and/or Threatened Species

RB Crockett documented an Indiana bat on the Refuge this month. Using an Anabat recording device, Crockett documented at least one Indiana bat using the Idleman's Run drainage near the water diversion structure. This was the first documentation of an Indiana bat in late summer/early spring on the Refuge. Previous documented occurrences were in late August which appeared to have been dispersing or migrating individuals. The presence of this endangered species on the Refuge in early May could indicate a "bachelor colony" of males using the Canaan Valley area. Continuing these Anabat surveys will help document Indiana bat presence and habitat use on the Refuge.

7. Other Migratory Birds

RB Sturm organized the annual Tucker County Migration Count again this year. A total of 6 volunteers counted throughout the county in an attempt to document as many breeding and migrant bird species as possible. This year a total of 115 species were recorded including 21 warbler species. The total list of species found is below.

TUCKER COUNTY MIGRATION COUNT
2007 Totals

SPECIES	Total number	SPECIES	Total number
Great Blue Heron	1	Blue-gray Gnatcatcher	2
Green Heron	1	Eastern Bluebird	3
Canada Goose	106	American Robin	83
Wood Duck	14	Wood Thrush	30
Mallard	8	Veery	7
Turkey Vulture	33	Swainson's Thrush	7
Northern Harrier	1	Hermit Thrush	9
Broad-winged Hawk	1	Gray Catbird	27
Red-Tailed Hawk	2	Brown Thrasher	14
Ruffed Grouse	1	European Starling	31
Wild Turkey	2	Cedar Waxwing	4
Killdeer	10	Golden-winged Warbler	1
Spotted Sandpiper	5	Northern Parula Warbler	13
Solitary Sandpiper	4	Bay-breasted Warbler	3
American Woodcock	1	Yellow-throated Warbler	1
Wilson's Snipe	2	Black-throated Green Warbler	62
Ring-billed gull	2	Black-and-White Warbler	14
Mourning Dove	37	Black-throated Blue Warbler	23
Rock Dove (pigeon)	1	Magnolia Warbler	31
Yellow-billed Cuckoo	2	Yellow-rumped (Myrtle) Warbler	21
Northern Saw-Whet Owl	1	Canada Warbler	10
Common Nighthawk	1	Chestnut-sided Warbler	31
Chimney Swift	34	American Redstart	33
Ruby-throated Hummingbird	24	Blackburnian Warbler	8
Belted Kingfisher	3	Yellow Warbler	22
Red-bellied woodpecker	6	Tennessee Warbler	2
Downy Woodpecker	2	Hooded Warbler	16
Hairy Woodpecker	5	Wilson's Warbler	7
Northern (Yellow-shafted) Flicker	19	Mourning Warbler	2
Pileated Woodpecker	8	Common Yellowthroat	71
Eastern Wood Peewee	4	Louisiana Waterthrush	16
Acadian Flycatcher	11	Ovenbird	29
Alder Flycatcher	2	Scarlet Tanager	42
Least Flycatcher	1	Northern Cardinal	17
Eastern Phoebe	8	Rose-breasted Grosbeak	30
Great Crested Flycatcher	3	Indigo Bunting	44
Eastern Kingbird	5	Eastern Towhee	58
Red-eyed Vireo	68	Field Sparrow	20
Warbling Vireo	3	Chipping Sparrow	52
Yellow-throated Vireo	4	Grasshopper Sparrow	5
Blue-Headed Vireo	39	Henslow's Sparrow	1
Blue Jay	66	Savannah Sparrow	10
Common Raven	13	Vesper Sparrow	2
American Crow	49	White-throated Sparrow	2
Northern rough-winged swallow	5	White-crowned Sparrow	1
Tree Swallow	34	Song Sparrow	61
Barn Swallow	34	Swamp Sparrow	23
Tufted Titmouse	22	Dark-eyed Junco	24
Black-capped Chickadee	31	Eastern Meadowlark	22
Red-breasted Nuthatch	11	Bobolink	42
White-breasted Nuthatch	11	Brown-headed Cowbird	15
Carolina Wren	3	Red-winged Blackbird	123
House Wren	17	Common Grackle	34
Winter Wren	5	Baltimore Oriole	22
Marsh Wren	2	Orchard Oriole	2
Golden-crowned Kinglet	11	House Finch	8
		Pine Siskin	5
		American Goldfinch	57
		House Sparrow	10

16. Marking and Banding

USFS Wildlife Biologist Jane Rodrigue banded grassland birds again this year focusing on Freeland and Beall Tract grasslands. This was the fourth year of the banding project, an effort to gain more information about the breeding grassland bird population, site fidelity and inter-valley movements of these birds between fields. A total of 11 birds were banded this year. At Beall there were three bobolinks, five grasshopper sparrows and two Henslow's sparrows banded. At Freeland only one Eastern meadowlark was banded. This was the second year in a row that Henslow's sparrows used and were captured at the Beall grassland. Also, one of the Henslow's (USFWS band #2280-40106) was a recapture from the same area of Beall from 2006. To date a total of 11 bobolinks, 15 grasshopper sparrows, 8 Eastern meadowlarks and 3 Henslow's sparrows have been banded on the Refuge as a result of Rodrigue's efforts.

H. Public Use

7. Other Interpretive Programs

RB Sturm taught "introduction to bird biology and identification" for the Tucker County Master Naturalist Program. Approximately 20 students attended this year. Class included an indoor lecture followed by field identification practice at Freeland and the Refuge Visitor's Center.

17. Law Enforcement

General

On the 30th and 31st LEO Hartwig visited Ohio River Islands NWR for a tour of the new facility.

Law Enforcement Incidents/Investigations

On the 14th LEO Hartwig found a device that is normally used for the smoking of marijuana. This device was found at the base of the kiosk at the Beall parking area.



Pipe found at Beall Parking area (05/14/07 B.H.)

LEO Hartwig was asked to assist West Virginia State Trooper M. Roy in questioning and eventual apprehension of two illegal aliens from Mexico. The two subjects were placed under arrest and transported to Tygart regional jail where they awaited deportation by INS. The two subjects were pulled over for speeding on WV state route 32 heading west.

Law Enforcement Court/Notice of Violations/Notice of Warning

On the 6th LEO Hartwig found two vehicles camping at the parking area for the Brown Mountain trail. Both subjects were issued NOV's for failing comply with special regulations.



Illegal Camping (05/06/07 B.H.)



Illegal Camping (05/06/07 B.H.)

Law Enforcement Outreach

On the 16th LEO Hartwig assisted Marquette Crockett with a group of first graders visiting the Refuge on a school field trip. The first graders were shown the beaver ponds at the Freeland trail.

LEO Hartwig was part of the first annual Kids, Cops and Firemen cookout held on the 7th at the city park in Parsons, WV. LEO Hartwig displayed some of his equipment and discussed their uses along with what he does while he is working.

Law Enforcement Contacts

Beall:	03
Freeland:	00
FS RD 80:	02
Camp 70:	05
A-Frame:	09
Blackwater River:	00
Whitegrass:	00
Big Cove:	00
Other:	00

Law Enforcement Hunting/Fishing/Trapping

Fishing compliance checks: 05

Hunter compliance Checks: 00

Law Enforcement Training

LEO Hartwig continues with the annual fitness program and firearms training.
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F. Habitat Management

10. Pest Control

RB Crockett attended a homeowner's association meeting at Blackbear Woods to request permission to conduct Japanese Stiltgrass surveys and control within the community. Approximately x people were at the meeting. Permission was granted enthusiastically and surveys within Blackbear Woods were scheduled for July. RB Crockett will be the lead contact for this project and submit a summary for the homeowner's association newsletter.

RB Ceperley coordinated the volunteer invasive plant survey on the Refuge trails this month providing a training class in the use of gps units as well as a second class on the survey methods and identification of targeted invasive species. Volunteers completed the first round of trail surveys this month.

G. Wildlife

7. Other Migratory Birds

RB Sturm conducted the annual breeding bird surveys on the Refuge again this year. Surveys began on June 1st and ran through June 12. Two volunteers, Casey Rucker and Michael Welch, aided the project by conducting surveys on three of the Refuges transects this year. Weather was less than optimal with two days of light rain during the survey period. Of note this year was a clay-colored sparrow on Herz tract and a white-eyed vireo on the Cortland tract. This was the first documentation of a white-eyed vireo on Refuge point counts.

10. Other Resident Wildlife

RB Crockett installed drift fence/pit trap arrays this month as a YCC project to survey different habitats for small mammals, amphibians and reptiles. Two arrays were placed at the Beall Tract, one at Freeland and one along Idleman's run. Pit and funnel traps will be opened on Monday and closed on Friday providing four trap nights per week. The YCC crew will be responsible to checking the arrays each morning and recording data from captures.



Youth Conservation Corps team installing a drift fence array at Beall Tract (6/27/2007 M.C.)

17. Disease Prevention and Control

RB Sturm and DM Holmes developed emergency response kits for avian influenza outbreaks on the Refuge. Materials for the kits were sent to Refuges this month, assembled by the Region. Kits were made up for all vehicles for smaller incidents as well as larger “turn out” kits with larger amounts of supplies necessary for dealing with an avian influenza outbreak.

H. Public Use

7. Other Interpretive Programs

RB Sturm and RB Ceperley each gave presentations at the first annual “Southern Boreal Bird Festival” sponsored by the Canaan Valley State Park. RB Ceperley’s presentation discussed the plant communities found in the Valley and on the Refuge and RB Sturm gave an overview of the Refuge’s fauna. Although only 15 people were in attendance, all were attentive and enthusiastic about the festival and the individual presentations.

RB Ceperley developed a class on Woody Shrubs, Vines, and Trees for the Canaan Valley Area Master Naturalist program. She spent ½ day teaching woody plant identification skills and the use of dichotomous keys to the approximately 20 students participating in the course.

17. Law Enforcement

General

Three trees were removed from Idleman's Run Trail on the 25th.

Boundary posting at the Cooper tract has been started. Safety zone signs have been placed around Janice Shepard's house.

On the 28th LEO Hartwig noticed several boards on the swinging bridge to be bad and/or missing from the ramps of the bridge. LEO Hartwig and Acting Manager Erin Holmes met at the bridge to discuss the safety of the bridge in relationship to the visitors who would be using the bridge. It was decided that the bridge was determined to be unsafe and would be closed until it was made safe.



Swinging bridge (06/28/07 B.H.)



Swinging bridge (06/28/07 B.H.)

On the 18th, LEO Hartwig was first on scene of an accident north bound on 219 just south of Oakland, MD in Garrett County. LEO Hartwig radioed Garrett County dispatch of the single car accident without injuries. The Deputies arrived at the accident and the scene was turned over to them.

On the 16th LEO Hartwig assisted WV State Trooper M. Roy in the pickup and transport of an individual from Davis Memorial Hospital to his initial appearance in front of the Magistrate of Tucker County for the offenses of attempted first degree murder and two counts of assault with a deadly weapon. After the hearing, he was taken to Tygart Regional Jail.

Law Enforcement Incidents/Investigations

On the 29th LEO Hartwig noticed the field across from the Ratliffs had been mowed. LEO Hartwig contacted the office and started to investigate the violation. It was found that the WV State Roads Department was responsible for the mowing of the field. A verbal warning was given by Acting Manager Erin Holmes and she asked to be contacted prior to any mowing done on Refuge land.



Mowed field across from Ratliffs home (06/29/07 B.H.)

On the 19th while talking with Acting Manager Erin Holmes in her driveway she noticed a truck that had been making short trips up Forest Road 80 and pointed it out to LEO Hartwig. She stated that this has been happening for a while. While we were still standing in the driveway the truck comes back of the mountain. LEO Hartwig drives up FR 80 to see where they had gone, they had stopped at the Kiosk at Idleman's Run. After further investigations LEO Hartwig found a pile of pine limbs tossed over the hill. The investigation is still ongoing.



Pile of pine limbs (06/19/07 B.H.)

On the 12th LEO Hartwig investigated tracks and large culverts on the Refuge behind Timberline Reality. It was found that Pat Herland had materials drop off at the future site of her new office. Verbal warnings were given for trespass, mowing of Refuge land and the culverts that had been left on Refuge land.



Mowing (06/12/07 B.H.)



Culverts on Refuge land (06/12/07 B.H.)

Law Enforcement Court/Notice of Violations/Notice of Warning

On the 11th LEO Hartwig pulled over a truck on State Route 32 for doing 78 mph in a 55 mph zone, the WV state ticket was written for 64 mph.

Law Enforcement Outreach

On the 1st LEO Hartwig was assisted by Marquette Crockett in leading groups of first graders from Davis-Thomas Elementary around the beaver bonds at the Freeland boardwalk. We discussed animal tracks, habitat and the ecosystem with the kids.



(06/01/07 M.C.)

On the 2nd LEO Hartwig helped out with the WV State Troopers both at the annual Fishing Derby at Camp Horseshoe. The weather was great and the kids had a great time.

Law Enforcement Contacts

Beall:	00
Freeland:	23
FS RD 80:	03
Camp 70:	24
A-Frame:	09
Blackwater River:	00
Whitegrass:	00
Big Cove:	00
Other:	00

Law Enforcement Hunting/Fishing/Trapping

Fishing compliance checks: 00

Hunter compliance Checks: 00

Law Enforcement Training

LEO Hartwig continues with the annual fitness program and firearms training.

Law Enforcement Equipment

LEO Hartwig prepared and sent an acquisition as requested, for a radar unit for the LE Tahoe to Tom Goettel the LE Chief for the Northeast Region.

J. Other Items

1. Cooperative Programs

RB Ceperley was invited to lead a one-day field trip for the Joint Field Meeting of the Philadelphia Botanical Club, Torrey Botanical Society, and Northeastern Section of the Botanical Society of America during their annual meeting at Davis and Elkins College, June 17-21, 2007. With DNR Ecologist Elizabeth Byers, Ceperley introduced the participants to unique sites in Canaan Valley, including Abes Run (CVSP), Bearden Flats beaver ponds (CVNWR), and the Old Timberline bridge oxbow (CVNWR). The group also inventoried the flora of the deer exclosure on Reichle, creating a list of plants they found there. The field trip botanists identified species not yet recorded from CVNWR, and the field trip provided the opportunity for refuge biologists to connect with a Glade Spurge specialist, who has offered to assist the refuge in identifying management strategies for maintaining this globally rare plant population.

E. Administration

1. Personnel

RB Crockett was extended another year on her 4 year term position this month. Crockett, a GS-7 Term Wildlife Biologist, will start her third year of her four year position this month.

RB Ceperley and RB Crockett participated in the USFWS chainsaw safety training this month.

8. Other

RM Schafler and RB Biologist met with National Natural Landmarks (NNL) coordinator Craig Shafer to review the status of the Canaan Valley NNL. The Valley, listed as an NNL in 1974 has been consistently listed as “damaged or threatened” due to off road vehicle damage to wetlands, invasive insects (balsam and hemlock wooly adelgid) and continuing development at the south end. The NNL program periodically visits the Refuge to evaluate the Valley and recommend maintaining or removing the “damaged or threatened” status of this NNL.

F. Habitat Management

10. Pest Control

RB Ceperley and RB Crockett conducted a survey for Japanese stiltgrass at Blackbear Woods this month. This was a project that was developed through meetings with the Blackbear Woods homeowners association in order to prevent areas infested with invasive species from spreading onto the Refuge. The survey did turn up one area with stiltgrass which was hand pulled. Several residents spoke with Ceperley and Crockett about the project and showed interest in identifying and removing this invasive species from their property.

RB Ceperley continued to coordinate the volunteer invasive plant survey on the Refuge this month with volunteers completing the second round of trail surveys. Reed canary grass and multiflora rose are the two most commonly identified species along trails being surveyed.

3. Forests

RB Ceperley and RB Sturm worked with WVDNR Community Ecologist Jim Vanderhorst to investigate a stand of red spruce on a newly acquired parcel along the North Branch River. Initial inspection of the property revealed several large red spruce and Eastern hemlock trees which may have represented original un-cut forest. Several red spruce and Eastern hemlock trees were cored with initial results showing one tree to be at least 254 years old. This is significant as historical information suggests that most if not all forests in the Canaan Valley area had been clear cut and burned between 1880

and 1920. Therefore this particular spruce tree represents the original forest long before European influence.

G. Wildlife

2. Endangered and/or Threatened Species

RB Crockett documented another Indiana bat on the Refuge, this time at the Freeland Tract beaver pond. Using an Anabat recording device, Crockett documented this species using the Refuge in mid-July giving the second occurrence of this endangered bat since May.

RB Crockett worked with the YCC crew to conduct a Cheat Mountain salamander survey on Kelly-Elkins tract this month. One Cheat Mountain salamander was identified on the coverboard plot of Cabin Knob. The salamander was relatively small thereby indicating reproduction within the population. This location has been monitored for this threatened species since 2000 and appears to have a stable, but small population. Future work to increase the suitable habitat at this site through spruce restoration will help to ensure this population remains productive.

10. Other Resident Wildlife

The YCC crew captured two invertebrates listed as State Species of Concern while conducting surveys on Kelly-Elkins Tract. At Stone-Coal Flats, a pink-edged sulphur butterfly and a ski-tailed emerald dragonfly were captured. The sulphur is listed as an S1 species in the state and is linked to high elevation habitats through its preference of low bush blueberry. The ski-tailed emerald is listed as an S2 by the state. Both are new records for the Refuge.